


# Locating Pins Shouldered

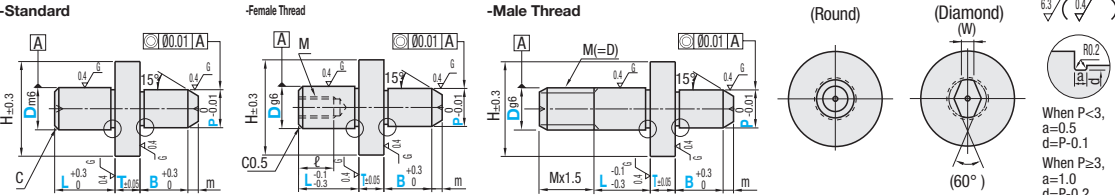
## -Tapered - Shoulder Thickness Configurable-

ⓂD=5 is now available for Female Thread Type.



Material No.	Material	Surface Treatment	Hardness	Type			Shape Code
				Standard	Female Thread	Male Thread	
(1)	SKS3	-	Treated Hardness 60 - 63HRC	FPJ	FPU	FPN	AT (Round) DT (Diamond)
(2)	SKS3	Hard Chrome Plating Plating Thickness 3um or More	Treated Hardness 60 - 63HRC Plating Hardness 750HV-	GFPJ	GFPU	GFPN	
(3)	SUS304	-	-	SFPJ	SFPU	SFPN	
(4)	SUS304	Hard Chrome Plating Plating Thickness 3um or More	Plating Hardness 750HV-	HFPJ	HFPU	HFPN	
(5)	SUS440C or 13Cr stainless	-	Treated Hardness 50 - 55HRC	CFPJ	CFPU	CFPN	

ⓂRefer to the price list to select the available combination. ⓂSUS440C or 13Cr stainless has an identification groove on D part.



Part Number		D	P	L	B	T	H	C	m	(W)
Type	Shape	D Dimension Tolerance μm	0.01mm Increment	1mm Increment	0.1mm Increment	0.5mm Increment				
FPJ GFPJ SFPJ HFPJ CFPJ	AT (Round)	2	+0.008	1.00-2.00	2-4	2.0-10.0	7	0.5	0.5	-
		3	+0.002	2.00-4.00	3-6	2.0-10.0	8	1	1.0	
		4	-	2.00-5.00	4-8	2.0-10.0	9	1	1.2	
		5	+0.012	3.00-6.00	5-10	2.0-10.0	10	1.5	1.5	
		6	+0.004	4.00-7.00	6-12	2.0-12.0	11	2	1.8	
	DT (Diamond)	8	+0.015	5.00-9.00	8-16	2.0-15.0	13	1.5	2.2	
		10	+0.006	7.00-11.00	10-20	3.0-20.0	15	3	3	
		12	-	7.00-12.00	12-24	3.0-20.0	17	2	3.2	
		13	+0.018	8.00-13.00	13-26	5.0-20.0	18	3.5	3.5	
		16	+0.007	13.00-16.00	16-32	5.0-20.0	21	4	4	
20	+0.021	16.00-20.00	20-40	5.0-20.0	25	5	5.5			

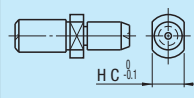
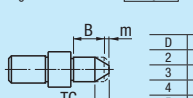
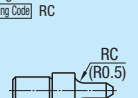
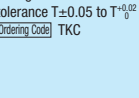
Part Number		D	P	L	B	T	H	m	(W)	M	ℓ
Type	Shape	D Dimension Tolerance μm	0.01mm Increment	1mm Increment	0.1mm Increment	0.5mm Increment				Coarse	
FPU GFPU SFPU HFPU CFPU	AT (Round)	5	-0.004	3.00-6.00	7-10	2.0-10.0	10	2	1.5	M2	3
		6	-0.012	4.00-7.00	6 (9) - 12	2.0-12.0	11	1.8	M3	5	
		8	-0.005	5.00-9.00	8 (12) - 16	2.0-12.0	13	2.2			
		10	-0.014	7.00-11.00	10 (12) - 20	2.0-15.0	15	3	M5	8	
		12	-	7.00-12.00	12-24	3.0-20.0	17	3.2			
	DT (Diamond)	13	-0.006	8.00-13.00	13 (14) - 26	3.0-20.0	18	4	3.5	M8	10
		16	-0.017	13.00-16.00	16-32	5.0-20.0	21	4	4		
		20	-0.027	16.00-20.00	20-40	5.0-20.0	25	5	5.5		

ⓂL dimension in ( ) is for the Diamond Type. ⓂNote the strength of under-head part. ⓂP1281 ⓂPlease confirm pilot hole depth on ⓂP1281 Holes may go through.

Part Number		D	P	L	B	T	H	m	(W)
Type	Shape	D Dimension Tolerance μm	0.01mm Increment	1mm Increment	0.1mm Increment	0.5mm Increment			
FPN GFPN SFPN HFPN CFPN	AT (Round)	3	-0.002	2.00-4.00	2-6	2.0-10.0	8	1	1.0
		4	-	2.00-5.00	2-8	2.0-10.0	9	1	1.2
		5	-0.004	3.00-6.00	3-10	2.0-10.0	10	1.5	1.5
		6	-0.012	4.00-7.00	3-10	2.0-12.0	11	2	1.8
		8	-0.005	5.00-9.00	5-10	2.0-15.0	13	2.2	2.2
	DT (Diamond)	10	-0.014	7.00-11.00	5-15	3.0-20.0	15	3	3
		12	-0.006	7.00-12.00	8-15	3.0-20.0	17	3.2	3.2
		16	-0.017	13.00-16.00	8-20	5.0-20.0	21	4	4
		20	-0.027	16.00-20.00	10-20	5.0-20.0	25	5	5.5

Order Example: Part Number - P - L - B - T  
FPJ AT 10 - P8.03 - L10 - B4.0 - T5


Alterations: Part Number - P - L - B - T - (HC / TC / RC / TKC)  
FPJAT8 - P8.03 - L9 - B6.3 - T8.5 RC

Alterations Code	Width Across Flats HC	Length of Tapered Point TC	Radius RC	Shoulder Thickness Tolerance TKC																														
Spec.	 HC=0.5mm Increment ⓂHC>DHC>P (Ordering Code) HC10.0	 Changes the m dimension (Ordering Code) TC8 (1mm Increment) <table border="1"> <tr> <th>D</th> <th>TC</th> <th>D</th> <th>TC</th> <th>D</th> <th>TC</th> </tr> <tr> <td>2</td> <td>1</td> <td>6</td> <td>3-11</td> <td>13</td> <td>5-22</td> </tr> <tr> <td>3</td> <td>2-5</td> <td>8</td> <td>4-14</td> <td>16</td> <td>6-23</td> </tr> <tr> <td>4</td> <td>2-7</td> <td>10</td> <td>4-18</td> <td>20</td> <td>6-23</td> </tr> <tr> <td>5</td> <td>3-9</td> <td>12</td> <td>4-20</td> <td></td> <td></td> </tr> </table>	D	TC	D	TC	D	TC	2	1	6	3-11	13	5-22	3	2-5	8	4-14	16	6-23	4	2-7	10	4-18	20	6-23	5	3-9	12	4-20			 Changes the relief to R0.5. (Ordering Code) RC ⓂApplicable when H-P≥2.	 Changes shoulder thickness tolerance T±0.05 to T+ <sup>+0.02</sup> . (Ordering Code) TKC ⓂApplicable when H-P≥2.
D	TC	D	TC	D	TC																													
2	1	6	3-11	13	5-22																													
3	2-5	8	4-14	16	6-23																													
4	2-7	10	4-18	20	6-23																													
5	3-9	12	4-20																															

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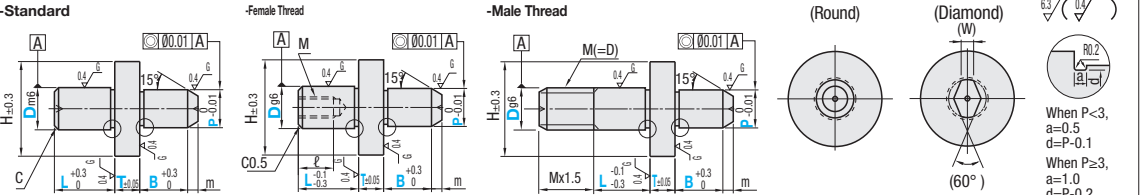
## -Tapered - Shoulder Diameter and Thickness Configurable-

ⓂD=5 is now available for Female Thread Type.



Material No.	Material	Surface Treatment	Hardness	Type			Shape Code
				Standard	Female Thread	Male Thread	
(1)	SKS3	-	Treated Hardness 60 - 63HRC	FPJ	FPU	FPN	ATD (Round) DTD (Diamond)
(2)	SKS3	Hard Chrome Plating Plating Thickness 3um or More	Treated Hardness 60 - 63HRC Plating Hardness 750HV-	GFPJ	GFPU	GFPN	
(3)	SUS304	-	-	SFPJ	SFPU	SFPN	
(4)	SUS304	Hard Chrome Plating Plating Thickness 3um or More	Plating Hardness 750HV-	HFPJ	HFPU	HFPN	
(5)	SUS440C or 13Cr stainless	-	Treated Hardness 50 - 55HRC	CFPJ	CFPU	CFPN	

ⓂRefer to the price list to select the available combination. ⓂSUS440C or 13Cr stainless has an identification groove on D part.



Part Number		D	P	L	B	T	H	C	m	(W)
Type	Shape	D Dimension Tolerance μm	0.01mm Increment	1mm Increment	0.1mm Increment	0.5mm Increment				
FPJ GFPJ SFPJ HFPJ CFPJ	ATD (Round)	2	+0.008	1.00-2.00	2-4	2.0-10.0	5.0-10.0	0.5	0.5	-
		3	+0.002	2.00-4.00	3-6	2.0-10.0	6.0-12.0	1	1.0	
		4	-	2.00-5.00	4-8	2.0-10.0	7.0-13.0	1	1.2	
		5	+0.012	3.00-6.00	5-10	2.0-10.0	8.0-14.0	1.5	1.5	
		6	+0.004	4.00-7.00	6-12	2.0-12.0	9.0-15.0	2	1.8	
	DTD (Diamond)	8	+0.015	5.00-9.00	8-16	2.0-15.0	11.0-17.0	1.5	2.2	
		10	+0.006	7.00-11.00	10-20	3.0-20.0	13.0-19.0	3	3	
		12	-	7.00-12.00	12-24	3.0-20.0	13.0-20.0	2	3.2	
		13	+0.018	8.00-13.00	13-26	5.0-20.0	15.0-21.0	4	3.5	
		16	+0.007	13.00-16.00	16-32	5.0-20.0	18.0-24.0	4	4	
20	+0.021	16.00-20.00	20-40	5.0-20.0	21.0-27.0	5	5.5			

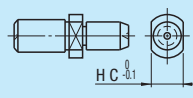
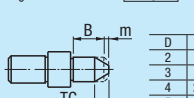
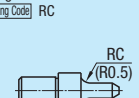
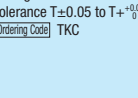
Part Number		D	P	L	B	T	H	m	(W)	M	ℓ
Type	Shape	D Dimension Tolerance μm	0.01mm Increment	1mm Increment	0.1mm Increment	0.5mm Increment				Coarse	
FPU GFPU SFPU HFPU CFPU	ATD (Round)	5	-0.004	3.00-6.00	7-10	2.0-10.0	8.0-14.0	2	1.5	M2	3
		6	-0.012	4.00-7.00	6 (9) - 12	2.0-12.0	9.0-15.0	1.8	M3	5	
		8	-0.005	5.00-9.00	8 (12) - 16	2.0-12.0	11.0-17.0	2.2			
		10	-0.014	7.00-11.00	10 (12) - 20	2.0-15.0	13.0-19.0	3	M5	8	
		12	-	7.00-12.00	12-24	3.0-20.0	13.0-20.0	3.2			
	DTD (Diamond)	13	-0.006	8.00-13.00	13 (14) - 26	3.0-20.0	15.0-21.0	4	3.5	M8	10
		16	-0.017	13.00-16.00	16-32	5.0-20.0	18.0-24.0	4	4		
		20	-0.027	16.00-20.00	20-40	5.0-20.0	21.0-27.0	5	5.5		

ⓂL dimension in ( ) is for the Diamond Type. ⓂNote the strength of under-head part. ⓂP1281 ⓂPlease confirm pilot hole depth on ⓂP1281 Holes may go through.

Part Number		D	P	L	B	T	H	m	(W)
Type	Shape	D Dimension Tolerance μm	Specify in 0.01mm Increment	Specify in 1mm Increment	Specify in 0.1mm Increment	0.1mm Increment	0.5mm Increment		
FPN GFPN SFPN HFPN CFPN	ATD (Round)	3	-0.002	2.00-4.00	2-6	2.0-10.0	6.0-12.0	1	1.0
		4	-	2.00-5.00	2-8	2.0-10.0	7.0-13.0	1	1.2
		5	-0.004	3.00-6.00	3-10	2.0-10.0	8.0-14.0	1.5	1.5
		6	-0.012	4.00-7.00	3-10	2.0-12.0	9.0-15.0	2	1.8
		8	-0.005	5.00-9.00	5-10	2.0-15.0	11.0-17.0	2.2	2.2
	DTD (Diamond)	10	-0.014	7.00-11.00	5-15	3.0-20.0	13.0-19.0	3	3
		12	-0.006	7.00-12.00	8-15	3.0-20.0	13.0-20.0	3.2	3.2
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		20	-0.027	16.00-20.00	10-20	5.0-20.0	21.0-27.0	5	5.5

Order Example: Part Number - P - L - B - T - H  
FPJ ATD 12 - P9.98 - L15 - B5.5 - T12 - H13

Alterations: Part Number - P - L - B - T - H - (HC / TC / RC / TKC)  
GFPJATD12 - P9.98 - L20 - B10.0 - T13.0 - H16.5 - RC

Alterations Code	Width Across Flats HC	Length of Tapered Point TC	Radius RC	Shoulder Thickness Tolerance TKC																														
Spec.	 HC=0.5mm Increment ⓂHC>DHC>P (Ordering Code) HC10.0	 Changes the m dimension (Ordering Code) TC8 (1mm Increment) <table border="1"> <tr> <th>D</th> <th>TC</th> <th>D</th> <th>TC</th> <th>D</th> <th>TC</th> </tr> <tr> <td>2</td> <td>1</td> <td>6</td> <td>3-11</td> <td>13</td> <td>5-22</td> </tr> <tr> <td>3</td> <td>2-5</td> <td>8</td> <td>4-14</td> <td>16</td> <td>6-23</td> </tr> <tr> <td>4</td> <td>2-7</td> <td>10</td> <td>4-18</td> <td>20</td> <td>6-23</td> </tr> <tr> <td>5</td> <td>3-9</td> <td>12</td> <td>4-20</td> <td></td> <td></td> </tr> </table>	D	TC	D	TC	D	TC	2	1	6	3-11	13	5-22	3	2-5	8	4-14	16	6-23	4	2-7	10	4-18	20	6-23	5	3-9	12	4-20			 Changes the relief to R0.5. (Ordering Code) RC ⓂApplicable when H-P≥2.	 Changes shoulder thickness tolerance T±0.05 to T+ <sup>+0.02</sup> . (Ordering Code) TKC ⓂApplicable when H-P≥2.
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